

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

14. (CANCELED)

17. (CANCELED)

19-20. (CANCELED)

22-24. (CANCELED)

25. (NEW) A method for assaying the activity of a kinase comprising

a) contacting a fluorophore-labeled substrate to produce a phosphoryl target group on said substrate; and,

b) contacting the fluorophore labeled phosphorylated substrate with a paramagnetic metal ion to form a complex of the paramagnetic metal ion with the phosphoryl target group, wherein said complex is in sufficient proximity to the fluorophore to cause specific quenching of the fluorescence from the fluorophore;

c) measuring the intensity of the observed fluorescent emission from the mixture;

d) wherein a decrease in the fluorescent emission as compared to an external reference is an indicator of kinase activity.

26. (NEW) A method for assaying the activity of a phosphatase or protease comprising

a) contacting a fluorophore-labeled substrate containing a target group complexed with a paramagnetic metal ion in sufficient proximity to the fluorophore to cause specific quenching of the fluorescence from the fluorophore, with a phosphatase or a protease so that cleavage by the phosphatase or protease separates said target group from the rest of the fluorophore labeled substrate, wherein the target group is a phosphoryl group in the case of a phosphatase or an imidazole group in the case of a protease,

b) measuring the intensity of the observed fluorescent emission from the mixture;

c) wherein an increase in the fluorescent emission as compared to an external reference is an indicator of phosphatase or protease activity.

27. (NEW) The method of claims 25 or 26 wherein the paramagnetic metal ion is Fe (III) and the target group is a phosphoryl group.

28. (NEW) The method of claims 25 or 26 wherein the substrate contains a single fluorophore label, which is the only dye entity attached thereto.

29. (NEW) The method of claims 25 or 26 wherein the paramagnetic metal ion, in addition to being bound to the target group, is coordinated with a chelator.